

Digestive System Diseases

By Alex Hogg

Diseases of swine that affect the digestive tract (stomach, small intestine, and colon) include colibacillosis, transmissible gastroenteritis (TGE), rotavirus, swine dysentery, and clostridial enteritis. The general signs of these enteric diseases are scours or diarrhea.

Colibacillosis (baby pig scours, white scours or milk scours), is caused by the bacterium *E. coli*. Colibacillosis usually strikes 3 age groups of pigs: 1 to 4 days old, 3 weeks old, and again at weaning time.

In 1 to 4 day old pigs, the clinical signs include listlessness, diarrhea (scours), followed by dehydration, emaciation (becoming very thin), and

a rough hair coat. The tail and skin around the rectum become wet with fecal material and the base of the tail becomes reddened. Death rate is generally very high in 1 to 4 day old pigs but less severe in 3 week old and 5 week old pigs.

Treatment is with injectable or oral antibiotics. In an outbreak, mass treatment of all pigs soon after birth with an effective antibiotic will control the disease and reduce losses.

Colibacillosis is prevented by improving sanitation; keeping pigs warm, clean, and dry; and vaccinating sows twice before farrowing with *E. coli* vaccines.

TGE (transmissible gastroenteritis) is caused by a virus and has been reported in most of the major swine producing countries.

The signs of acute TGE are vomiting, watery diarrhea, and severe dehydration.

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A typical outbreak affects baby pigs, growing-finishing pigs, breeding sows, and boars that are not immune from a previous infection or immune due to vaccination.

Mortality is high in pigs under 2 weeks of age and decreases among older pigs. Pigs over 4 weeks of age seldom die. Sows may vomit, lose their appetite, have diarrhea and fever, and stop giving milk. TGE is more frequent during winter months, usually December to April.

In addition to pig carriers, TGE can be spread from one farm to another by dogs, foxes, starlings, and human traffic.

If a TGE outbreak occurs, pregnant sows that are more than 3 weeks from farrowing should be exposed immediately to the virus. Infected sows will develop an immunity and protect their pigs through antibodies in the milk.

Uninfected sows that will farrow in less than 3 weeks should be isolated and an attempt made to prevent infection with TGE virus until the pigs are at least 3 weeks old.

Endemic TGE

Continuous farrowing practiced in large units tends to make TGE a year-round prob-

lem rather than the winter-spring problem observed in classical TGE.

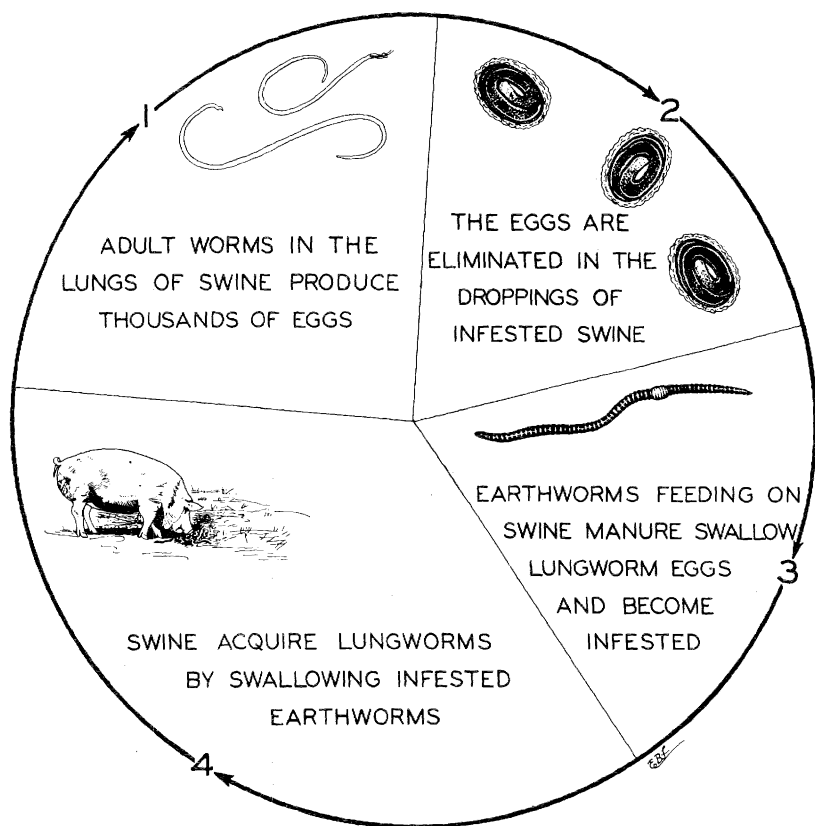
The clinical signs in this condition differ from those seen in classical TGE because some immunity develops in the sows, which partially protects the pigs. Diarrhea is usually observed at 10 to 12 days of age or after weaning. Not all litters or all pigs in the litter develop diarrhea.

Death loss in endemic TGE averages about 10 percent. To prevent TGE, sows should be vaccinated 6 weeks and 2 weeks before farrowing. A 3-month farrowing schedule to break the disease cycle will help prevent endemic TGE.

Rotavirus causes a mild type of scours, usually at about 10 to 14 days of age. Rotavirus also can affect pigs after weaning.

Clostridial enteritis (enterotoxemia, hemorrhagic enteritis) is a form of scours affecting young pigs that has been reported worldwide. This disease is caused by a bacterium, *Clostridium perfringens*, Type C. The disease usually affects piglets during the first week of life, but nursing pigs up to a month old can be affected.

Clinical signs are a watery, yellow scour that may contain traces of blood. Af-



Life cycle of lungworm.

USDA

ected pigs may die in a few hours to 2 days.

Once clinical signs appear no treatment is effective, but injections of Type C antitoxin given to the newborn pigs as soon after birth as possible will help prevent the disease.

Injections of Type C tox-

oid to sows 10 weeks and 3 weeks before farrowing will protect the nursing pigs.

Swine Dysentery

This disease also has been called black scours, bloody scours and vibronic dysentery. Swine dysentery is re-

ported worldwide, and is increasing rapidly in the U.S. Corn Belt. Dysentery is seen most frequently in 8 to 14 week old pigs. Older pigs and adult animals can be affected and are carriers of the disease.

A bacterium, *Treponema hyodysenteriae*, is considered the primary causative agent of swine dysentery.

The first signs of bloody dysentery usually appear 5 to 12 days after exposure, but an incubation period of 3 to 4 weeks sometimes is encountered in field cases.

A bloody, mucous diarrhea is the most prominent early sign and is accompanied by dehydration and weight loss. The bloody feces may be red and resemble tomato ketchup, or may have a black, tarry appearance. Affected pigs may be wobbly in the hind quarters and have evidence of abdominal pain.

Effective drugs and management practices are used to treat and control swine dysentery. Management practices that help control the disease include isolating affected pigs, maintaining pigs on a concrete floor which is washed down daily, or reducing exposure by putting the pigs in large pastures.

To prevent and control

swine dysentery, don't purchase breeding stock from herds that have had swine dysentery within the past 2 years. All new swine brought to the farm should be isolated and treated with an effective drug for 30 days before being allowed contact with the main herd.

If prevention and drug control fail, the herd should be depopulated. Pens and equipment should then be thoroughly cleaned with soap and water and disinfected. Restock the farm with healthy animals 30 days after cleanup is completed. Depopulate only during hot dry weather.

Internal Parasites

Worms or internal parasites are a major cause of diseases of the digestive system.

The common worms that infect pigs are: Roundworm, threadworm, whipworm, nodular worm, stomach worm and lungworm.

Worms are controlled by making a diagnosis from post-mortem examination or fecal examination. Once a diagnosis is made, start a deworming program with an effective medication for the species of worms identified. Use sanitary procedures that will prevent exposure to worm eggs passed in the feces.